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10/736,611	12/17/2003	Lars-Olof Svedberg		4065

7590

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EXAMINER

ZEMEL, IRINA SOPJIA

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/736,611

Applicant(s)

SVEDBERG ET AL.

Examiner

Irina S. Zemel

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1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17, 21, 24 and 25 is/are allowed.
- 6) ☒ Claim(s) 18, 20, 22, 23, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102/103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 20, 22 and 26-27 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Patent 4,958,933 to Zakich (hereinafter "Zakich").

Zakich discloses an expansion device for preparing expanded thermoplastic microspheres comprising rotatable feeding means (30, 31) enveloped by a hollow body (33), and one or more scrapers or wiper sections (37) positioned between the outer radius of the feeding means and the inner surface of the hollow body. The scrapers are mounted on the feeding means and extending radially beyond the outer radius of the feeding means towards the inner surface of the hollow body. See figures 1 or 2. The reference further discloses that the scraping or wiping area is about 30 % of the length of the extruder hollow body. Figures 1 and 2 further fully anticipate limitations of

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claims 22, 26 and 27 as to the feeding means and the scraper constructions and mounting.

Claim 18 contains a preamble limitation of intended use of the device as an expansion device. This limitation is given weight only to the extent that the device disclosed in the reference is capable of being used such. The disclosed device is inherently capable for the claimed use because the disclosed device (entire) is used for expansion of polymers and even the second portion of the device (second extruder) is inherently capable of being used in the expansion of microparticles since it comprises an outer jacket that can be heated with heating liquid). Therefore, the preamble limitation is anticipated by the reference. The burden is shifted to the applicant to provide convincing factual evidence to the contrary.

### ***Claim Rejections - 35 USC § 103***

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zakich.

The disclosure of Zakich is discussed above. The reference expressly states that the part of the wiping blades 52 can be made of high temperature plastics. See column 4, lines 36-40. Fluoropolymers (for example, PTFE teflons) as claimed in claim 23 are notoriously known high temperature plastics, and it is the examiners positions, that such plastics would have been clearly obvious for an ordinary artisan from the genus of high temperature plastics.

### ***Response to Arguments***

Applicant's arguments with respect to claims 18-27 have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

Claims 1-17 and 21, 23 and 24 are allowed.

No prior art of record discloses a method of expanding of a method of preparing **expanded thermoplastic microspheres**, comprising the steps of:

charging thermally **expandable microspheres** into an expansion device comprising **rotating feeding means enveloped by a hollow body**, and one or more **scrapers** preventing layers of microspheres being built-up in the expansion device, **transpoding** the microspheres through the expansion device while increasing the temperature of the microspheres to achieve expansion thereof; or a n expansion device for preparing expanded microspheres as claim in claim 18 that in addition has heating means (claims 23 and 24), or scraper parameters claimed in claim 21.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 6,099,288 discloses an extrusion apparatus having extended portions of the feeding means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irina S. Zemel  
Examiner  
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A handwritten signature in black ink, appearing to read 'Irina Zemel', written in a cursive style.

ISZ